④ $f(x) = (ax+b)\sin x$. 상수 a와 b의 값? 두 조건 만족

$$f'(0) = 0$$
$$f(x) + f''(x) = 2\cos x$$

$f'(x) = a\sin x + (ax+b)\cos x$. $f''(x) = a\cos x + a\cos x - (ax+b)\sin x$

$\underset{\underset{a\sin 0 + b\cos 0}{\shortparallel}}{f'(0)} = \underset{\shortparallel}{b} = 0$ $\therefore b = 0$

$(ax+b)\sin x + 2a\cos x - (ax+b)\sin x = 2\cos x$

$ax\sin x + 2a\cos x - ax\sin x = 2\cos x$

$$2a = 2$$

$\therefore a = 1$